

PRODUCT SPECIFICATION FOR INFORMATION

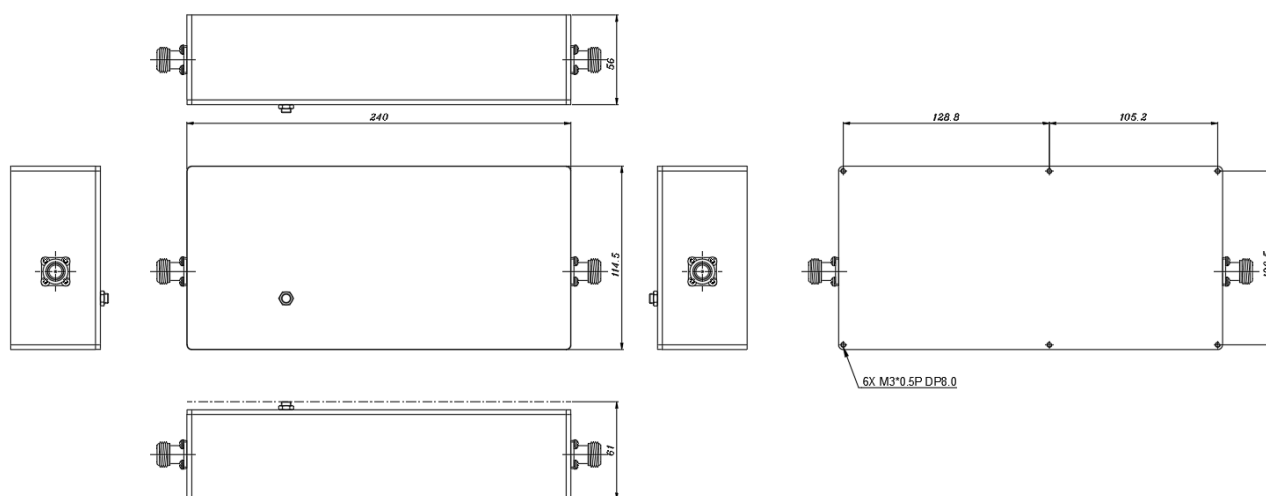
PRELIMINARY SPECIFICATION

Product Name : Cavity Band Pass Filter

Part No : MBP-C419_2MN-C-R0

	Rev. No.	Description	Date	Author	Final Approver
1	R0	Draft	2024.04.25	Jeffrey Chung	Michael Jeon

■ Mechanical Drawing



■ Electrical Specification

Parameter	Specification	Remark
1. Center Frequency	419 MHz	OK
2. Bandwidth [BW]	$F_c \pm 1\text{MHz}$ [418~420MHz]	OK
3. Insertion Loss in BW	1.0dB(Typ.) 1.15dB(Max.)	OK
4. Ripple	0.2dB Max.	OK
5. Return Loss	17dB Min.	OK
6. Rejections	55dB(min.) @ 20-88MHz	OK
	55dB(min.) @ 150-204MHz	OK
	70dB(min.) @ 220-400MHz	OK
	80dB(min.) @ 402-404MHz	OK
	75dB(min.) @ 426-450MHz	OK
	85dB(min.) @ 450-1000MHz	OK
7. In/Out Impedance	50 Ohm	OK
8. Operating Temperature	-10 ~ +85°C	OK
9. Power Handling	75W Max.	OK
10. Size (W × D × H)	240 x 114.5 x 56(61) [mm]	Proposed
11. Random Vibration	MIL-STD-810F method 541.5 Procedure C1. 3axes, 20min.per each axis.	OK
12. Dust	MIL-STD-810F method 514.4 Procedure 3 settling dust	OK
13. Interface	N-Type(F)	OK
14. Finish	Black Epoxy	TBD

Remarks: This is a preliminary datasheet for reference.

Simulation Curve

[RX] Insertion loss

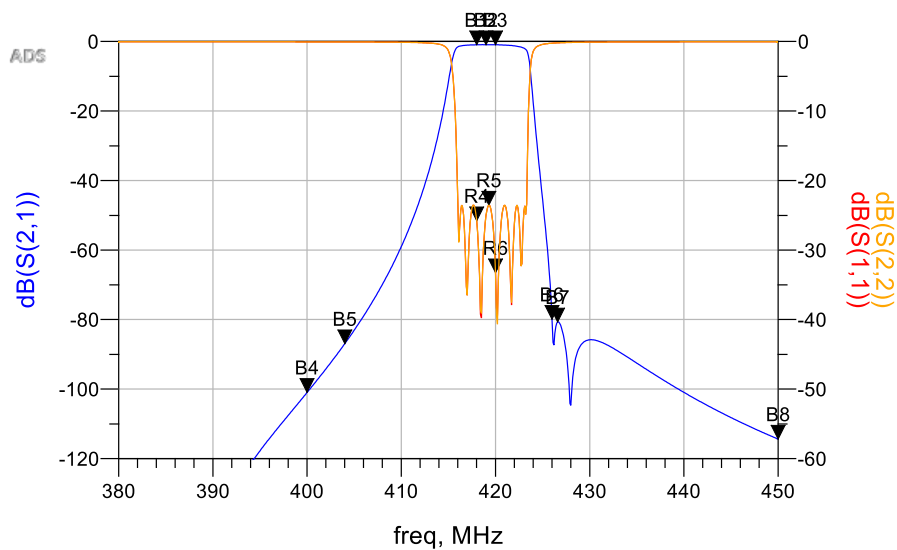
Insertion loss

B1
freq=418.00MHz
dB(S(2,1))=-0.9664

B2
freq=419.00MHz
dB(S(2,1))=-0.9424

B3
freq=420.00MHz
dB(S(2,1))=-0.9596

IL_RX	Ripple_RX
-0.97	-0.03



Rejection

B4
freq=400.00MHz
dB(S(2,1))=-100.9735

B5
freq=404.00MHz
dB(S(2,1))=-86.9550

B6
freq=426.00MHz
dB(S(2,1))=-79.9295

B7
freq=426.60MHz
dB(S(2,1))=-80.6711

B8
freq=450.00MHz
dB(S(2,1))=-114.3979

Return loss

R4
freq=418.00MHz
dB(S(1,1))=-25.7879

R5
freq=419.30MHz
dB(S(1,1))=-23.5402

R6
freq=420.00MHz
dB(S(1,1))=-33.2673

[RX] Insertion loss

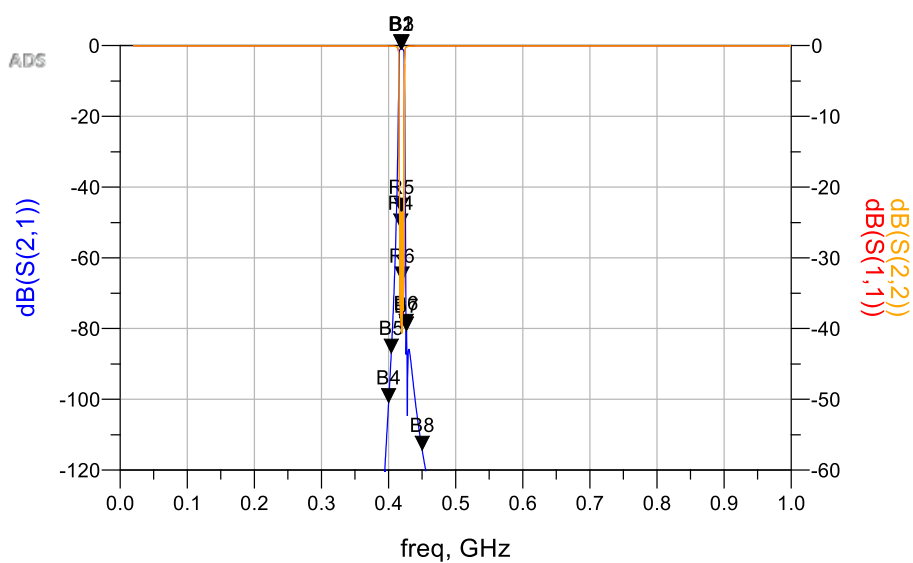
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